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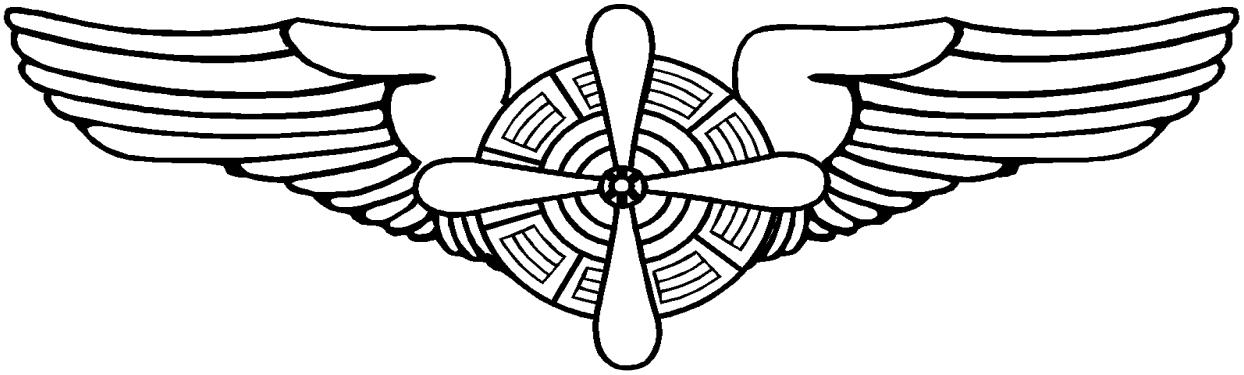
Washington, DC 20330-1480

CFETP 1A1X1C
Parts I-II
July 1999

AFSC 1A1X1C
Flight Engineer Specialty
(Fixed Wing)



CAREER FIELD
EDUCATION AND TRAINING PLAN

CAREER FIELD EDUCATION AND TRAINING PLAN
FLIGHT ENGINEER SPECIALTY
(PERFORMANCE)
AFSC 1A1X1C

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FLIGHT ENGINEER SPECIALTY
AFSC 1A1X1C
CAREER FIELD EDUCATION AND TRAINING PLAN

Part I

Preface

1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education and training requirements, training support resources, and minimum core task requirements for this specialty. The CFETP will provide personnel a clear career path to success and instills rigor in all aspects of career field training.

2. The CFETP consists of two parts; both parts of the plan are used by supervisors to plan, manage, and control training within the career field.

2.1 Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan; Section B identifies career progression information, duties and responsibilities, training strategies, and career field path; Section C associates each level with specialty qualifications (knowledge, education, training, and other); Section D indicates resource constraints. Some examples are funds, manpower, equipment, facilities. Section E identifies transitional training guide requirements for SSgt through MSgt. Note: AFMAN 36-2108, *Airman Classification*, contains the specialty descriptions.

2.2. Part II includes the following: Section A identifies the Specialty Training Standard (STS) and includes duties, tasks, technical references to support training, Air Education and Training Command (AETC) conducted training, wartime course, core tasks, and correspondence course requirements; Section B contains the course objective list and training standards supervisors will use to determine if airmen satisfied training requirements; Section C identifies available support materials. An example is a qualification training package (QTP) which may be developed to support proficiency training. QTPs identified in this section have been developed to support upgrade/qualification training. These packages are identified in AFIND 8, *Numerical Index of Specialized Educational Training Publications*; Section D identifies a training course index which are used to determine resources available to support training. Included here are both mandatory and optional courses; Section E identifies MAJCOM unique training requirements.

3. This CFETP is designed to ensure individuals in AFSC 1A1X1C receive comprehensive and effective training at the appropriate phases of their career. This plan will enable us to train today's work force for tomorrow's jobs. At unit level, supervisors and trainers use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan.

ABBREVIATIONS/TERMS EXPLAINED

Advanced Training (AT). A formal course training selected career airmen at the advanced level of an Air Force Specialty for a technical or supervisory-level Air Force Specialty.

Air Force Career Field Manager (AFCFM). Individuals appointed by Air Staff DCS's to manage education, training, and resources for a specific career field(s).

Aircrew Training System (ATS). A comprehensive listing of tasks and objectives to be trained during formal training.

Airframe and Power Plant License (A&P). A license awarded by the Federal Aviation Administration (FAA) requiring testing and practical evaluations.

Basic Aircraft Qualification (BAQ). An aircrew member who has satisfactorily completed initial qualification training and is qualified to perform aircrew duties in the unit aircraft. The member must perform at the minimum frequency necessary to meet the most recent sortie and flight standards set for that weapon system in the applicable MDS-Specific, Volume 1.

Basic Flight Engineer (BFE) Course. Non-flying course designed to cover the fundamentals and applications of basic flight engineer duties and responsibilities. This course awards AFSC 1A131.

Basic Mission Capable (BMC). An aircrew member who has satisfactorily completed mission qualification training, does not maintain MR/CMR status, but maintains familiarization in the command or unit operational mission. The aircrew member may maintain qualification in some aspects of the unit mission, and is able to attain full qualification in the unit mission within 30 days, or otherwise specified in the applicable MDS-Specific, Volume 1.

Career Development Course (CDC). A self-paced course designed to upgrade a skill level.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive, multipurpose document encapsulating the entire spectrum of training for a specialty. It outlines a logical growth path, including training resources, and is designed to eliminate duplication and make training identifiable and budget defensible.

Cockpit/Crew Resource Management (CRM). The effective use of all available resources—people, weapon systems, facilities and equipment, and environment—by individuals or crews to safely and efficiently accomplish an assigned mission or task. The term "CRM" will be used to refer to the training program, objectives, and key skills directed to this end. MAJCOMs may implement their programs as either "cockpit" or "crew" resource management based on their respective missions.

COMMANDO LOOK. An orientation/selection program used by Air Force Special Operations Command (AFSOC) to inform and orient prospective aircrew members on AFSOC's mission and aircraft.

Continuation Training (CT). Additional advanced training, usually conducted at unit level, exceeding the minimum upgrade training requirements, designed to reinforce existing qualifications.

Core Tasks. Tasks the AFCFM identifies as minimum qualification requirements within an AFSC. These tasks exemplify the essence of the career field--the foundation. Failure to complete core tasks precludes upgrade. Core tasks not applicable to MAJCOMs are waiverable by MAJCOM functional managers.

Course Objective Lists (COL). A publication, derived from our initial skills course training standard, identifying the tasks and knowledge requirements, and respective standards provided to

achieve a 3-skill level in this career field. Supervisors use the COL to conduct graduate evaluations in accordance with AFI 36-2201.

Enlisted Aircrew Undergraduate Course (EAUC). Course designed to screen enlisted aircrew candidates for the rigors of duties associated with flying.

Examiner Flight Engineer. A flight engineer designated to administer evaluations.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill level of a specialty.

Exportable Training. Additional training via computer assisted, paper text, interactive video, or other necessary means to supplement training.

Federal Aviation Administration (FAA). Federal agency designed to monitor, approve, and qualify all aspects of the aircraft industry.

First Flight Engineer. An engineer fully qualified to perform flight engineer duties.

Initial Skills Training. A formal school course that results in award of a 3-skill level AFSC.

Input/Feeder AFSC. An AFSC containing the basic skills required for successful entry in AFSC 1A1X1.

Instructional System Development (ISD). A deliberate and orderly, but flexible process for planning, developing, validating, implementing, and reviewing instructional programs. It ensures that personnel are taught, in a cost efficient way, the knowledge and skills for successful job performance.

Instructor Flight Engineer. A flight engineer authorized to instruct on those missions for which qualified.

MAJCOM Functional Manager. Individuals appointed by MAJCOMs to manage education, training, and resources for a specific career field(s) for that MAJCOM.

Major Weapons Systems (MWS). All applicable airborne platforms with a crew complement including at least one 1A1X1C.

Mission Capable (MC). The status of an aircrew member who has satisfactorily completed training prescribed to perform the unit mission but who does not maintain MR status.

Mission Ready/Combat Mission Ready (MR/CMR). An aircrew member who has satisfactorily completed mission qualification training and maintains qualification and proficiency in the command or unit operational mission.

On-the-Job Training (OJT). A delivery method used to certify personnel in both upgrade (skill level award) and job qualification (duty position certification) training. It is hands-on, over-the-shoulder training conducted at the duty location.

Phase-I Initial Qualification Training (IQT). An aircrew member engaged in training needed to qualify for basic duties in an assigned position for a specific aircraft, without regard for the unit's operational mission.

Phase-II Mission Qualification Training (MQT). An aircrew member engaged in training needed to qualify in an assigned aircrew position to perform the command or unit operational mission.

Phase-III Continuation Training (CT). An aircrew member engaged in training to maintain and develop a qualification required in IQT or MQT. An aircrew member in Phase III training may be assigned MR, MC, or BAQ status.

Practicum. A means of receiving college credits through CCAF's Teaching Technology Associates Degree Program for formal schoolhouse instructors which covers a wide variety of subjects beyond initial instructor qualification.

Qualification Training. Actual hands-on task performance-based training designed to certify an airman in a specific duty position. This training program occurs both during and the after upgrade training process. It is designed to provide the performance skills training required to do the job.

Qualification Training Package (QTP). An instructional package designed for use at unit level to conduct qualification training. It may be printed, computer based, or in other audiovisual media.

Resource Constraints. Resource deficiencies, such as funds, facilities, time, manpower, and equipment that preclude desired training from being delivered.

Retraining. Either formal school or on-the-job training (OJT) which qualifies an airman for award of anew AFSC or AFSC shredout, to include lateral AFSCs.

Second Flight Engineer. An engineer qualified to perform limited engineer duties. A second flight engineer is considered to be MR.

Specialty Training Standard (STS). An Air Force publication that describes skills and knowledge that airman in a particular Air Force specialty need on the job, and identifies the training provided to achieve a 3-, 5-, and 7-skill level within an enlisted AFS. It further serves as a contract between AETC and the functional user to show which of the overall training requirements for an AFSC are taught in formal schools and correspondence courses.

Standard. An exact value, a physical entity, or abstract concept, established and defined by authority, custom, or common consent to serve as a reference, model, or rule in measuring quantities or qualities, establishing practices or procedures, or evaluating results. A fixed quantity or quality.

Total Force. The collective components (active, reserve, guard and civilian elements) of the United States Air Force.

Training Setting. The type of forum in which training is provided (formal resident school, on-the-job, field training, mobile training team, self-study, etc.)

Upgrade Training (UGT). Training that leads to the award of a higher skill level in an AFS.

Utilization and Training Workshop (U&TW). A forum of the AFCFM, MAJCOM functional managers, subject matter experts, and AETC/MAJCOM training personnel that determines career ladder training requirements.

War Skills. Tasks that AFS functional managers identify as minimum qualification requirements trained at the in-resident wartime course.

Weapons System Training Package (WSTP). An instructional course which includes IQT, MQT, and CT designed for use at the unit to qualify or aid qualification in a duty position, program, or on a piece of equipment. The WSTP may be printed, computer based, flying, simulator, or other audio visual material.

Section A - General Information

1. Purpose. This CFETP provides information necessary for the Air Force Career Field Manager (AFCFM), MAJCOM functional managers (MFMs), commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the training that individuals must receive in order to develop and progress throughout their career. For the purpose of this plan, training is divided into four areas: initial skills, upgrade training (UGT), qualification training (QT), and continuation training (CT). Initial skills training is the Air Force Specialty specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level. For this career field, training is provided by AETC at Altus AFB, OK and Little Rock AFB, AR. Upgrade training identifies the mandatory courses, task qualification requirements, and correspondence course completion required for award of the 3-, 5-, 7-, and 9-skill levels. Qualification training is actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge training required for the job. Continuation training is additional training either in-residence or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required. The CFETP has several purposes, some are:

1.1 Serves as a management tool to plan, manage, conduct, and evaluate a career field training program. Also, it is used to help supervisors identify training at the appropriate point in an individual's career.

1.2. Identifies task and knowledge training requirements for each skill level in this specialty and recommends education/training throughout each phase of an individual's career.

1.3. Lists training courses available in the specialty, identifies sources of training, and the training medium.

1.4. Identifies major resource constraints which impact full implementation of the desired career field training program.

2. Uses. The plan will be used by MFMs and supervisors at all levels to ensure a comprehensive and cohesive training programs are available and/or instituted for each individual in the specialty.

2.1. AETC training personnel will develop/revise formal resident, non-resident, field and exportable training based on requirements established by the user and documented in Part II of the CFETP. They will also work with the AFCFM to develop acquisition strategies for obtaining resources needed to provide the identified training.

2.2. MFMs will ensure their training programs complement the CFETP mandatory initial and upgrade skills requirements. Identified requirements can be satisfied by OJT, resident training, contract training, or exportable courses. MAJCOM-developed training to support this AFSC must be identified for inclusion in this plan and must not duplicate available training resources

2.3. Each individual will complete the mandatory training requirements specified in this plan. The list of courses in Part II will be used as a reference to support training.

2.4. Qualification training packages (QTP) are developed by AETC, MAJCOM functional managers, and/or unit training managers. Unit developed QTPs will be provided to the parent MAJCOM and included in the CFETP.

2.5. Personnel in AFSC 1AXXX are exempt from maintaining OJT Training Folders (AF Form 623). All core tasks identified in this document are satisfied in IQT, MQT, and CT. That training is

certified via Flight Evaluation Folder by trained instructors and evaluators. Certification of the Form 8 eliminates the requirement to document STS items in this CFETP.

3. Coordination and Approval. The AFCFM is approval authority. MAJCOM representatives and AETC training personnel will identify and coordinate on the career field training requirements. The AETC training manager for this specialty will initiate an annual review of this document by AETC and MFMs to ensure currency and accuracy. Using the list of courses in Part II, they will eliminate duplicate training. Applicable inputs/changes to this CFETP will be routed to HQ AETC/DOFM, 1F Street, Ste. 2, Randolph AFB, TX 78150-4235.

Section B - Career Progression and Information

4. Specialty Description.

4.1. **Specialty Summary.** Performs visual inspections and inflight duties. Operates and monitors engine and aircraft systems controls, panels, indicators, and devices. Manages flight engineer functions and activities. Related DoD Occupational Subgroup: 050.

4.2. **Duties and Responsibilities.**

4.2.1. Performs aircraft inspections. Performs aircrew visual inspection; non-scheduled aircraft maintenance; and pre-flight, through-flight, and post-flight inspections of aircraft away from home station. Maintains aircraft forms and records during flight and while aircraft is away from home station.

4.2.2. Computes and applies aircraft weight, balance, and performance data. Determines and verifies passenger, cargo, fuel, and emergency and special equipment distribution and weight. Computes aircraft weight and balance to ensure specified limits are maintained. Computes takeoff, climb, cruise, and landing data. Determines engine fuel consumption using airspeed, atmospheric data, charts, computer, or electronic calculator. Records actual aircraft performance data in flight engineer's log.

4.2.3. Operates and monitors engine and aircraft systems controls and indicators. Assists pilot or performs engine starts, and monitors runup, flight operations, and engine shutdown. Operates engine controls to provide desired efficiency and economy. Monitors engine instruments throughout period of operation. Controls, monitors, and regulates aircraft systems such as electric, communication, navigation, hydraulic, pneudraulic, fuel, air conditioning, and pressurization; ventilation; auxiliary power unit; and lubrication systems. Observes warning indicators and light for fire, overheat, depressurization, and system failure. Reports abnormal conditions to pilot, and recommends corrective action.

4.2.4. Plans and organizes flight engineer activities. Organizes flight engineering standardization, qualification, and other requirements flight engineer logs, reports, and records for accuracy, completeness, format, and compliance with current directives. Coordinates with other agencies and organizations to conduct flight engineer activities.

4.2.5. Directs flight engineer activities. Administers qualification flight to personnel engaged in flight engineer activities within flight test and operations organizations. Directs standardization of flight engineer performance in conjunction with aircraft performance engineering, engine conditioning, and preventive maintenance programs. Ensures conformance with prescribed aircrew procedures.

4.2.6. Inspects and evaluates flight engineer activities. Evaluates individual and group performance in terms of effectiveness and qualification in using equipment and materials. Interprets and discusses evaluation findings, and recommends action to correct deficiencies.

4.2.7. Performs technical flight engineer functions. Resolves technical problems encountered by operating units. Renders advice and technical assistance to agencies engaged in functions associated with flight engineer activities. Advises organizational commander or staff agencies on status of flight engineer activities and adequacy of equipment. Maintains qualification in aircraft.

5. Skill/Career Progression. Adequate training and timely progression from the apprentice to the superintendent skill level play an extremely important role in the Air Force's ability to accomplish its mission. Therefore, it is essential that everyone involved in training do their part to plan, develop, manage, conduct and evaluate an effective and efficient training program. The guidance provided in this part of the CFETP will ensure individuals receive viable training at appropriate points in their career. The following narrative and the AFSC 1A1X1C career field flow charts identify the training career path. They define the training required in an individual's career.

5.1. **Apprentice (3-skill level)**. Initial skill training in this specialty consists of the tasks and knowledge training provided in the 3-skill level resident course located at Altus AFB OK or Little Rock AFB AR. Completion of the Enlisted Aircrew Undergraduate Course (J3AQR1A111C 000) at Sheppard AFB TX, is mandatory prior to entry into survival schools and initial qualification training (except ARC). Initial skills training requirements were identified during the 1A1X1C Utilization and Training Workshop, held 5-6 May 1999 at Little Rock AFB, AR. The decision to train specific tasks and knowledge items in the initial skills course was based on 1A1X1C subject matter expert (SME) inputs. Tasks and knowledge training requirements are identified in the specialty training standard, at Part II, Section A. Individuals must complete the initial skills course (Basic Flight Engineer) to be awarded AFSC 1A131.

5.2. **Journeyman (5-skill level)**. Upgrade training to the 5-skill level in this specialty consists of (1) completing 3 a month apprenticeship period before being entered into upgrade training, (2) completing the 1A151C Career Development Course, (3) completing all core tasks identified in the CFETP and other duty position tasks identified by the supervisor, (4) completing a minimum of 12 months in 5-level upgrade training (minimum of 6 months for retrainees), and (5) be recommended by their supervisor.

5.3. **Craftsman (7-skill level)**. Upgrade training to the 7-skill level in this specialty consists of (1) completion of all 5/7-skill level training requirements listed in the CFETP, (2) be a SSgt select or above, and (3) completion of 12 months in 7-level OJT (6 months for retrainees).

5.4. **Superintendent (9-skill level)**. Entry into 9-skill level training is initiated when an individual possesses the 7-skill level, completes the Senior NCO Academy (in-residence course for active duty personnel, in-residence/correspondence course for ARC personnel), and sews on SMSgt.

5.5 **Chief Enlisted Manager (CEM).** CEM code is awarded upon promotion to Chief Master Sergeant.

6. Training Decisions. The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Flight Engineer career field. This CFETP was developed to include life-cycle (day one through retirement) training requirements for this specialty. The spectrum includes a strategy for when, where, and how to meet the training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training. The following training decisions were made at the career field Utilization and Training Workshop held at Little Rock AFB, AR, 5-6 May 1999.

6.1. **Initial Skills Training.**

6.2. **Five-Level Upgrade Training.** No formal changes.

6.3. **Seven-Level Upgrade Training.** No formal changes.

6.4. **Proficiency Training.** No formal changes.

7. Community College of the Air Force . Enrollment in CCAF occurs upon completion of basic military training. Off-duty education is a personal choice but is highly encouraged. CCAF provides the opportunity to obtain an Associates in Applied Sciences Degree. Contact the local education office for more current course information. In addition to its associate degree program, CCAF offers the following:

7.1. **Occupational Instructor Certificate**. Upon completion of instructor qualification training consisting of an instructor methods course and supervised practice teaching, CCAF instructors who possess an associates degree or higher may be nominated by their school commander/commandant for certification as an occupational instructor.

7.2**. Trade Skill Certification.** When a CCAF student separates or retires, a trade skill certification is awarded for the primary occupational specialty. The College uses a competency based assessment process for trade skill certification at one of four proficiency levels: Apprentice, Journeyman, Craftsman/Supervisor, or Master Craftsman/Manager. All are transcribed on the CCAF transcript.

7.3. **Degree Requirements:** All airmen are automatically entered into the CCAF program. The 5 skill level must be held at the time of program completion. The following degree requirements come from the 1999-2001 CCAF Catalog for the Aviation Operations (4VCB) degree:

Subject Area	***Semester Hours***
Technical Education	24
Leadership, Management, and Military Studies	6
Physical Education	4
General Education	15
Program Elective	15
Total	**64**

7.3.1. **Technical Education (24 Semester Hours):** Twenty-four semester hours are required to fulfill the technical education requirement. Twelve semester hours must be applied from technical core course with the remaining 12 applied from either technical core or technical elective course. Requests to substitute subjects/courses must be approved in advance by the Technical Branch at CCAF.

7.3.1.1. **Technical Core (12-24 Semester Hours):**

Subjects/Courses	***Max Semester Hours***
Aircraft Flight Engineer	10
Aviation/Flight Safety	6
CCAF Internship	16
FAA Flight Engineer Certificate	8
Flight Rules and Regulations	3
Helicopter Flight Engineer	10
Introduction to Aeronautics	3
Survival Training	6

7.3.1.2. **Technical Electives (0-12 Semester Hours).**

Subjects/Courses	***Max Semester Hours***
Advanced Flight Engineering	12
Aerodynamics	3
Aircraft Systems	6
Aircraft Weight and Balance	3
Aviation Law	6
Climatology/Meteorology	6

Private/Commercial Pilot's License	3
Computer Science	6
Electricity/Electronics	6
Enlisted Professional Military Education	12
FAA Airframe/Powerplant Certificate	6
Flight Physiology	3
General Chemistry/Algebra-Based Physics	4
Human Relations	3

7.3.2. **Leadership, Management, and Military Studies (6 Semester Hours):** Professional military education and/or civilian management courses.

7.3.3. **Physical Education (4 Semester Hours):** This requirement is satisfied by completion of Basic Military Training. PHE 1000.

7.3.4. **General Education (15 Semester Hours):** Applicable courses must meet the criteria for application of courses to the General Education Requirement (GER) and be in agreement with the definitions of applicable general education subject/courses as provided in the CCAF general catalog.

Subject/Courses	***Semester Hours***
Oral Communication (speech)	3
Written Communication (English composition)	3
Mathematics (intermediate algebra or college-level mathematics)	3
Social Science (anthropology, archaeology, economics, geography, government, history, political science, psychology, sociology)	3
Humanities (courses in fine arts(criticism, appreciation, historical significance, foreign language, literature, philosophy, religion)	3

7.3.5. **Program Elective (15 Semester Hours).** Satisfied with applicable technical education; leadership, management, and military studies; or general education subjects/courses, including natural science courses meeting GER application criteria and foreign language credit earned at the Defense Language Institute or through the Defense Language Proficiency Test. Six semester hours of CCAF degree-applicable technical credit otherwise not applicable to this program may be applied.

7.4. Additional off-duty education is a personal choice that is encouraged for all. Individuals desiring to become an Air Education and Training Command Instructor should be actively pursuing an associates degree. A degreed faculty is necessary to maintain accreditation through the Southern Association of Colleges and Schools.

8. Career Field Flow Charts. Charts depicting individual specialty career paths are presented in figures 2 through 15. The career flowcharts show when training is required for each skill level and function. Figure 16 depicts assignment locations as of printing date.

Figure 1. Enlisted Career Path

Figure 2. Awarding of Flight Engineer AFSC 1A131

Figure 3. Flight Engineer Career Progression

Figure 4. Generic C-130 Flight Engineer Career Progression

Figure 5. C-5 Flight Engineer Career Progression

Figure 6. C-141 Flight Engineer Career Progression

Figure 7. E-3 Flight Engineer Career Progression

Figure 8. E-8 Flight Engineer Career Progression

Figure 9. KC-10 Flight Engineer Career Progression

Figure 10. Special Assignments Requirements

Figure 11. 1A1X1C Assignment Locations

Enlisted Career Path

Education and Training Requirements	GRADE REQUIREMENTS				
	Rank	Earliest Sew-on	Air Force Average Sew-on	1A1XX(C) Average Sew-on	High Year of Tenure (HYT)
Basic Military Training School					
Apprentice Technical School **(3-Skill Level)**	Amn A1C	6 months 16 months			
Upgrade To Journeyman **(5-Skill Level)** - Complete 3 months duty position and apprentice experience before beginning journeyman training. - Minimum 12 months on-the-job training (minimum of 6 months for retrainee). - Complete appropriate CDC.	SrA	28 months	3 years	3 years	10 years
Airman Leadership School (ALS) - Must be a SrA with 48 months time in service or be a SSgt selectee. - Resident graduation is a prerequisite for SSgt sew-on (Active Duty Only).					
Upgrade To Craftsman (7-Skill Level) - Minimum rank of SSgt select - 12 months OJT - Must be 7-skill level for TSgt sew-on.	SSgt	3 years	7.4 years	7.7 years	20 years
Noncommissioned Officer Academy (NCOA) - Must be a TSgt or TSgt selectee. - Resident graduation is a prerequisite for MSgt sew-on (Active Duty Only).	TSgt MSgt	5 years 8 years	14.1 years 16.5 years	14.1 years 16.7 years	20 years 24 years
Senior NCO Academy (SNCOA) (or sister service) - Must be a SMSgt or SMSgt selectee. - Resident graduation is a prerequisite for CMSgt sew-on (Active Duty Only).	SMSgt	11 years	20.4 years	19.8 years	26 years
Upgrade To Superintendent (9-Skill Level) - Minimum rank of SMSgt. - Must be a resident graduate of SNCOA (Active Duty Only).	CMSgt	14 years	21.9 years	22.7 years	30 years
Data current as of May 99					

Figure 1

Awarding of Flight Engineer AFSC 1A131

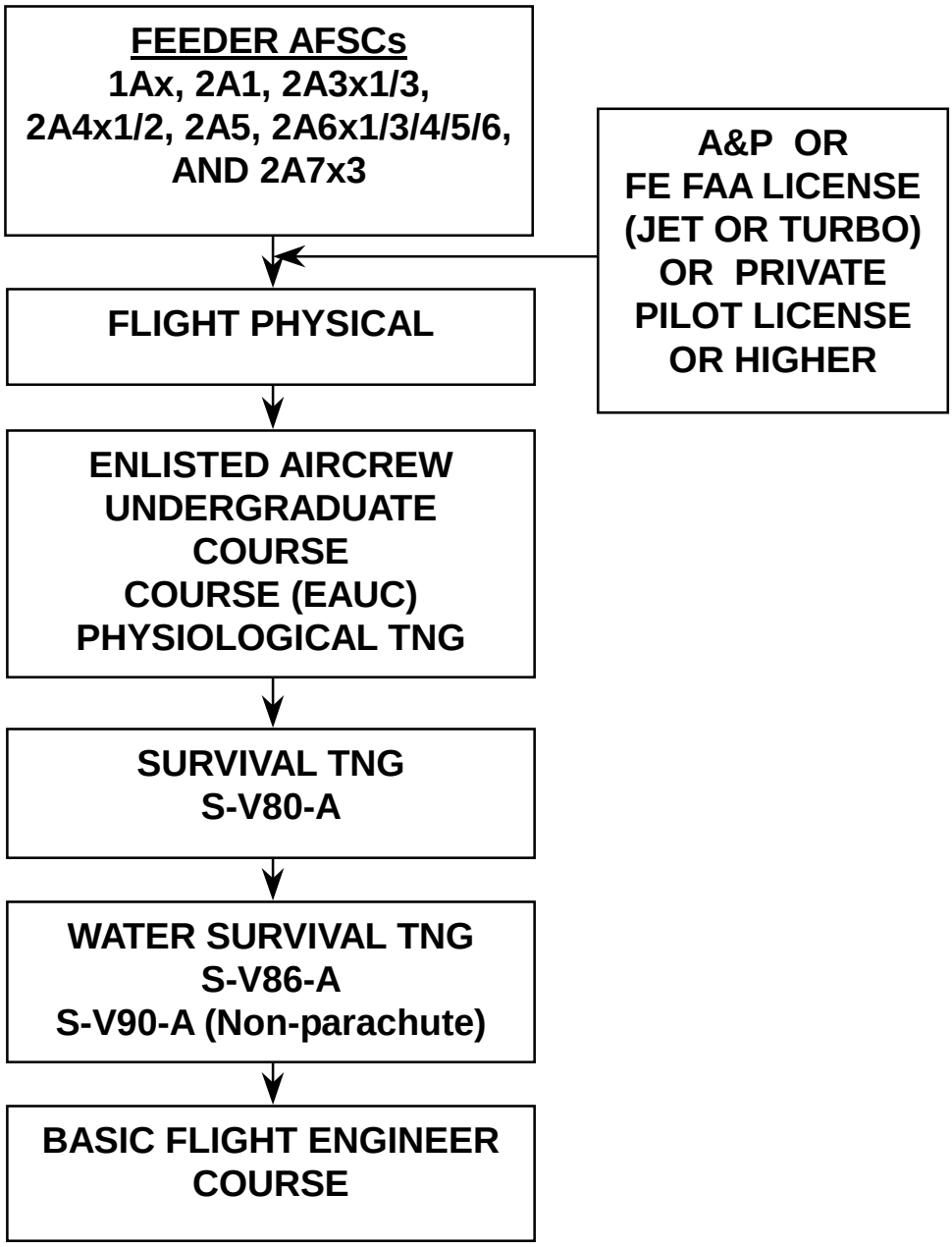
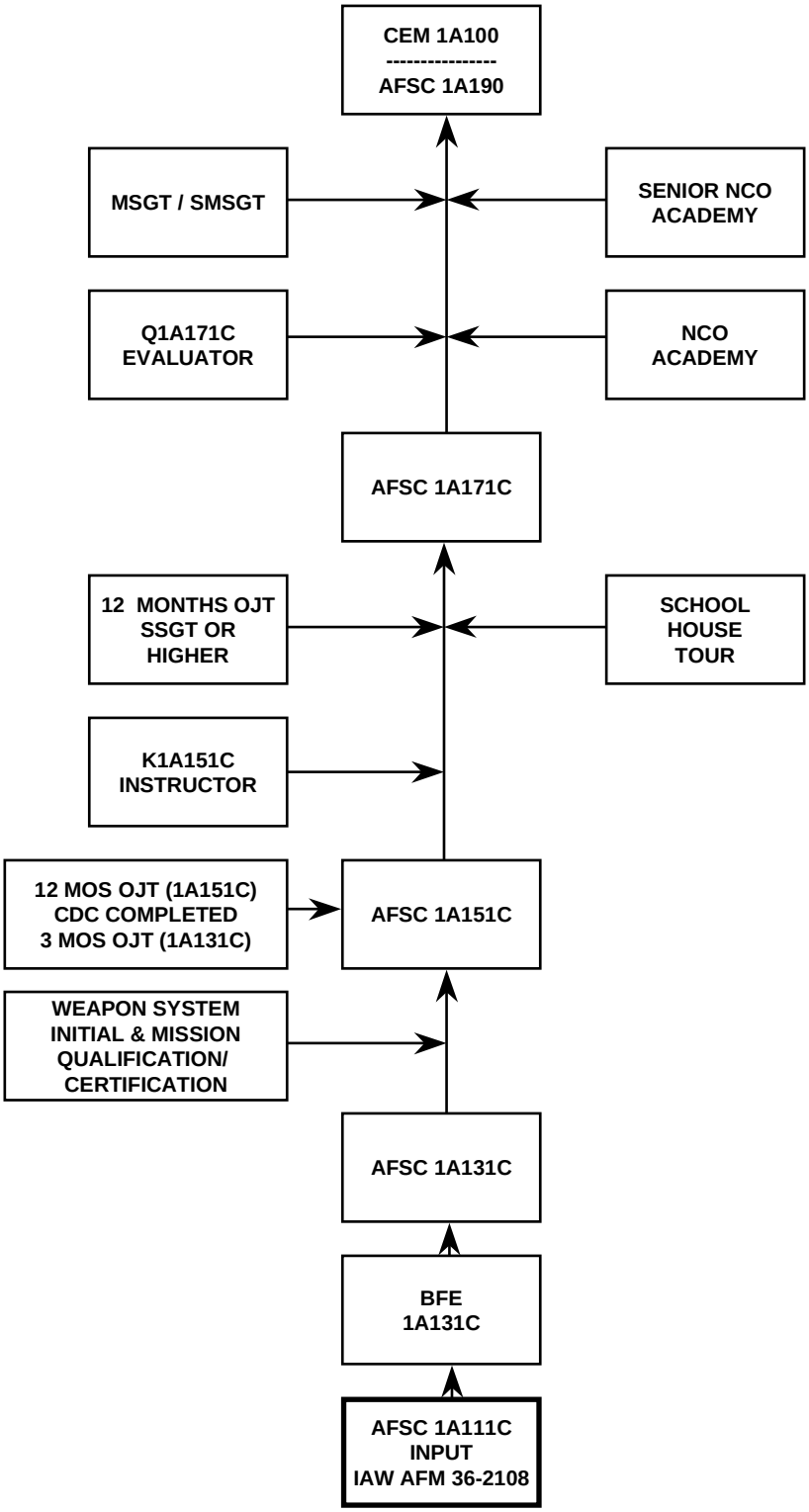


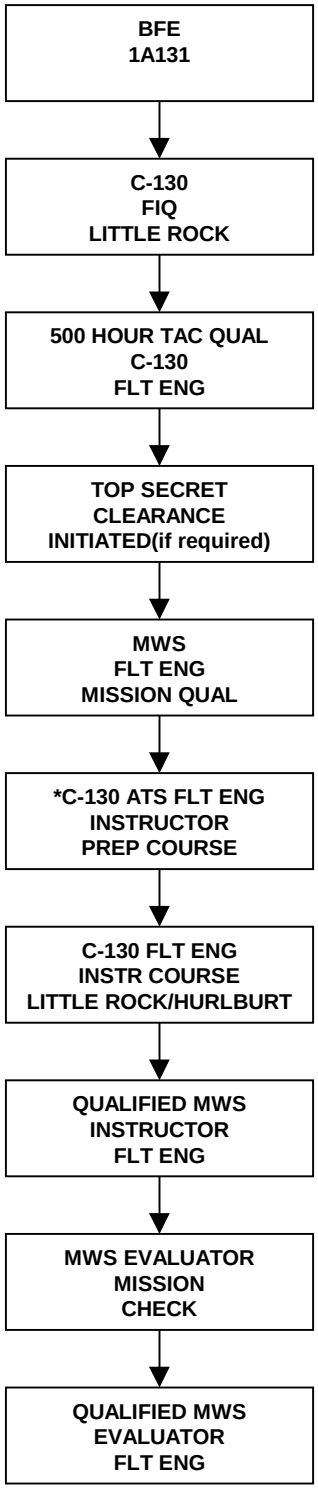
Figure 2



Flight Engineer Career Progression

Figure 3

Generic C-130 Flight Engineer Career Progression



*Not required if previously accomplished

Figure 4

C-5 Flight Engineer Career Progression

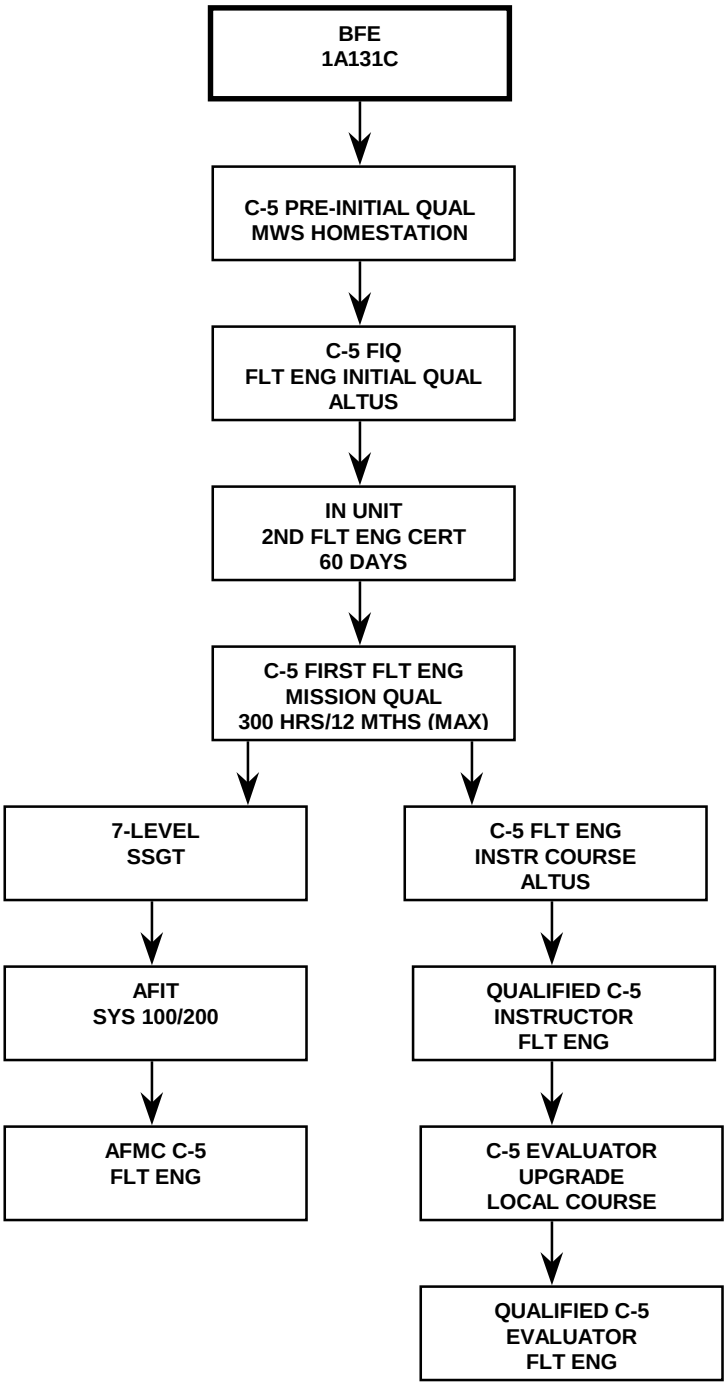


Figure 5

C-141 Flight Engineer Career Progression

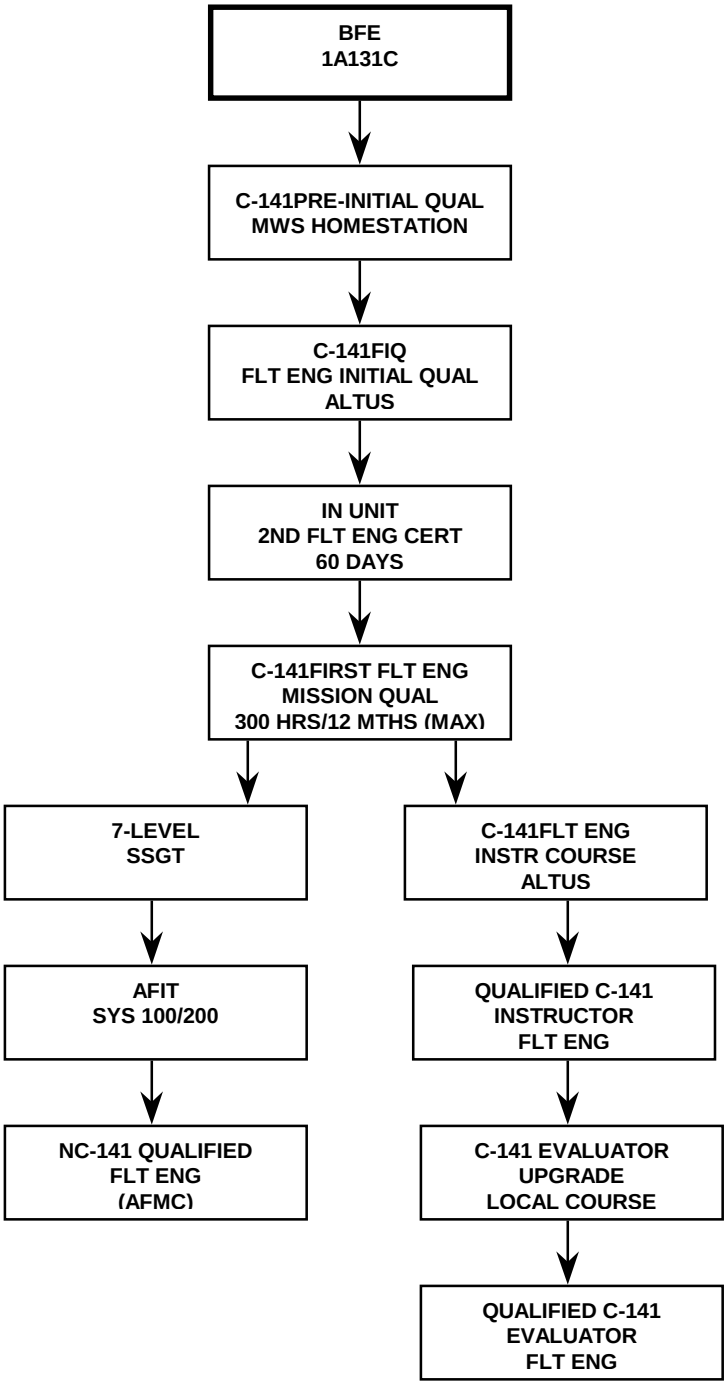


Figure 6

E-3 Flight Engineer Career Progression

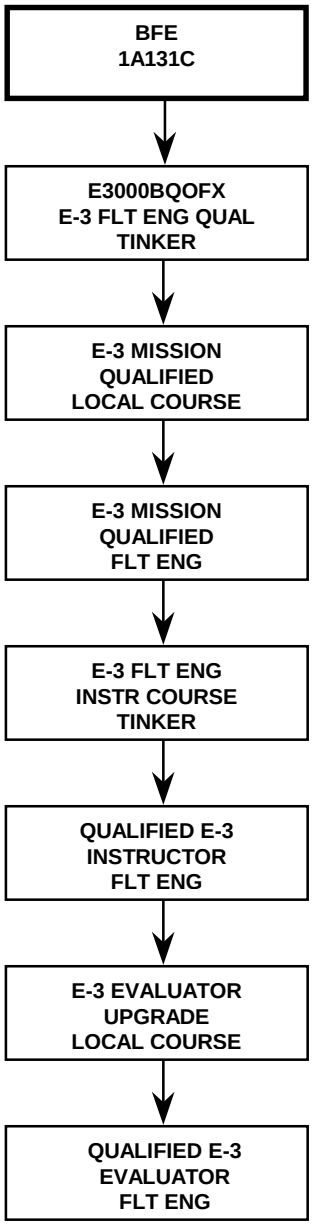


Figure 7

E-8 Flight Engineer Career Progression

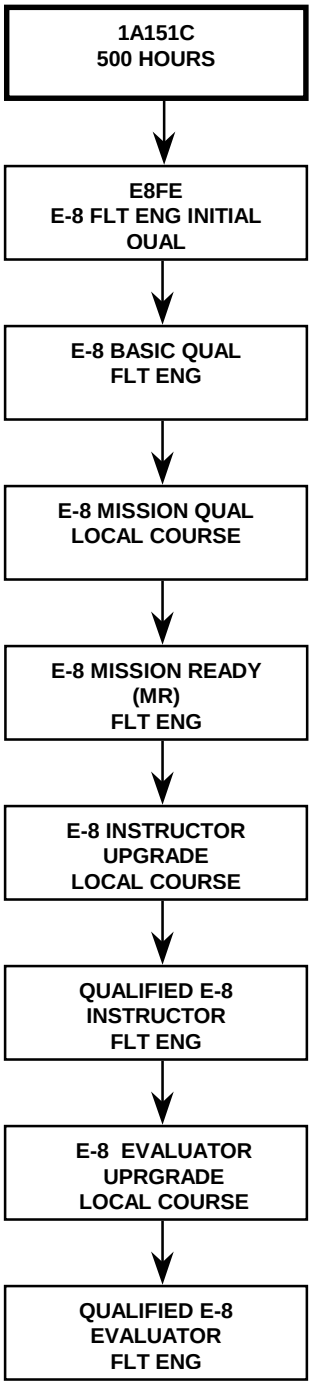
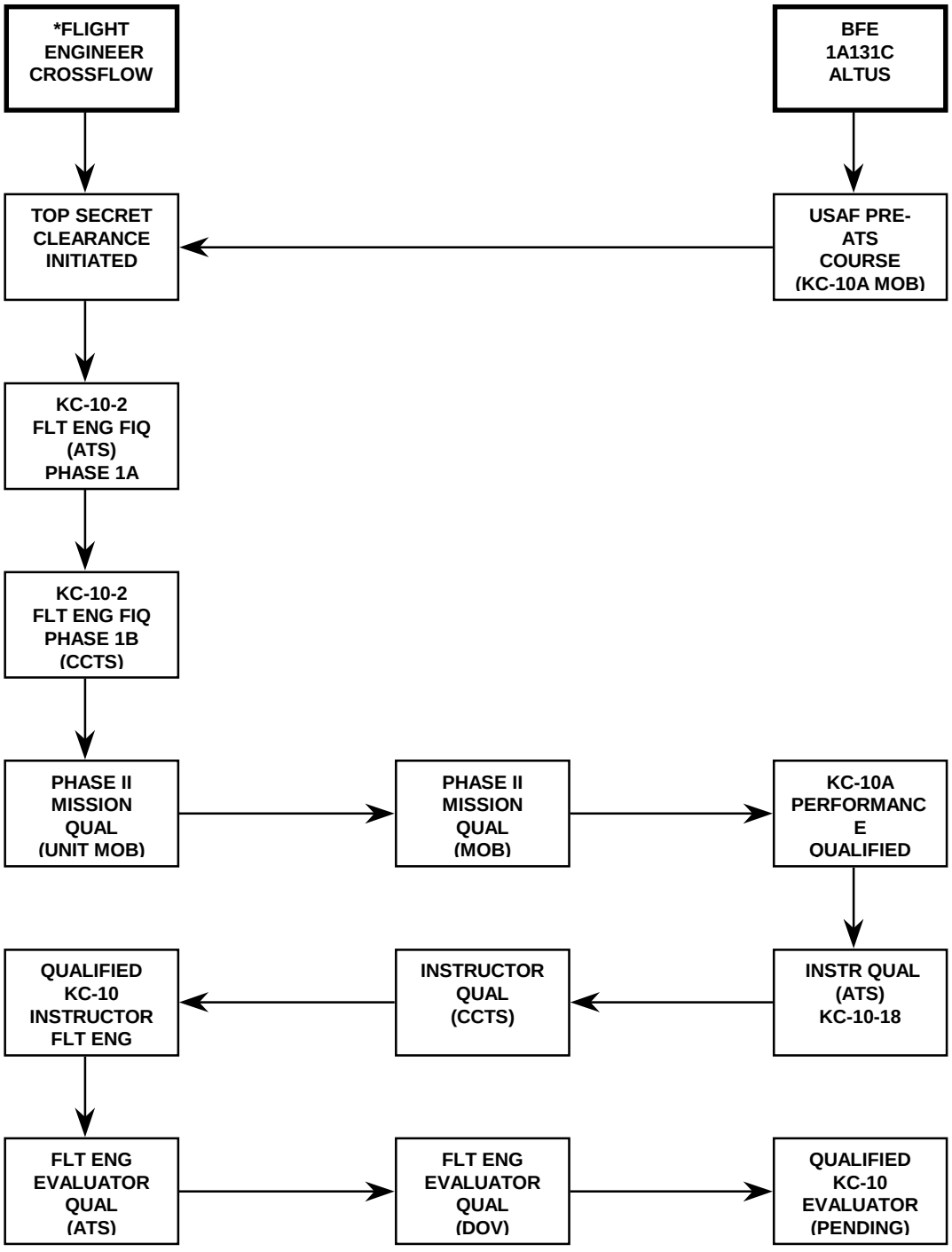


Figure 8

KC-10 Flight Engineer Career Progression



*FLOW FROM SPECIAL ASSIGNMENT

Figure 9

Special Assignments Requirements

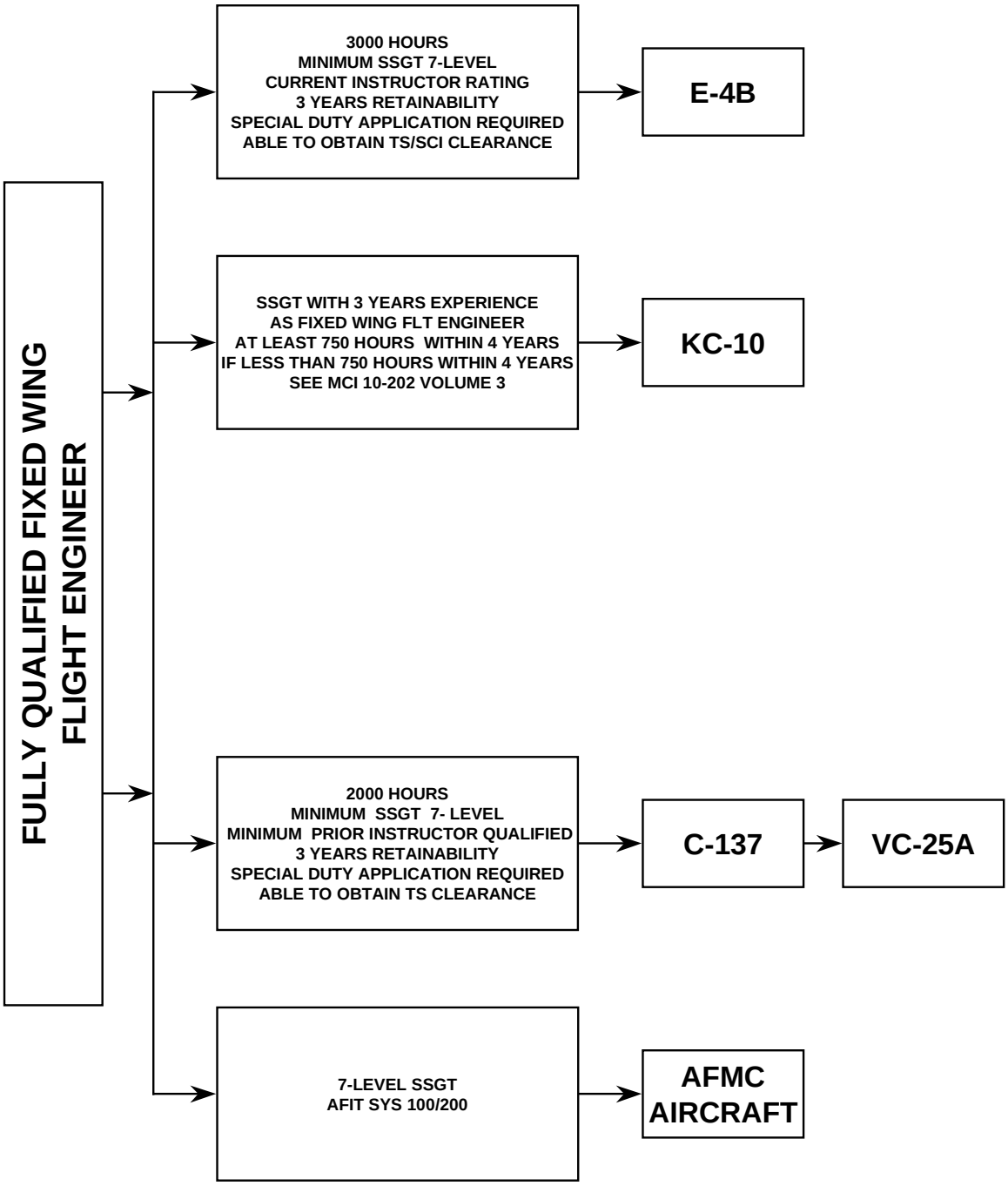


Figure 10

1A1X1C Assignment Locations

Location	CMS	SMS	MSG	TSG	SSG	SRA	A1C	Student
Altus AFB OK	X	X	X	X	X			X
Andrews AFB MD	X	X	X	X				
Barksdale AFB LA		X						
Birmingham AL			X					
Charleston AFB SC		X	X	X	X	X		
Davis-Monthan AFB AZ		X	X	X	X	X		
Dover AFB DE	X	X	X	X	X	X		
Dyess AFB TX	X	X	X	X	X	X		
Edwards AFB CA		X	X	X				
Eglin AFB FL		X	X	X	X	X		
Elmendorf AFB AK	X	X	X	X	X	X		
F E Warren AFB WY		X						
Ft Dix NJ			X					
Geilenkirchen AB GER	X	X	X	X	X			
Hanscom AFB MA		X						
Hickam AFB HI			X	X	X			
Hill AFB UT		X	X	X	X			
Hurlburt Fld FL	X	X	X	X	X	X		
Irving TX		X	X					
Kadena AB JPN		X	X	X	X	X		
Kelly AFB TX		X	X	X				
Kirtland AFB NM	X	X	X	X	X			X
Langley AFB VA	X		X					
Little Rock AFB AR	X	X	X	X	X	X		X
Marietta GA			X					
McChord AFB WA	X	X	X	X	X	X		
McGuire AFB NJ	X	X	X	X	X	X		X
Melborne FL			X	X				
Moody AFB GA		X	X	X	X	X		
Nellis AFB NV		X						
Offutt AFB NE			X	X	X			
Palmdale AF Plant CA		X		X				
Patuxent River NAS			X					
Pope AFB NC	X	X	X	X	X	X		
RAF Mildenhall UK		X	X	X	X	X		
Ramstein AB GER	X	X	X	X	X	X		
Randolph AFB TX	X	X	X					
Robins AFB GA	X	X	X	X	X	X		
Scott AFB IL	X	X	X	X				
Shaw AFB SC			X					
Sheppard AFB TX					X			
Tinker AFB OK	X	X	X	X	X	X		X
Travis AFB CA	X	X	X	X	X	X		X
Wright-Patterson AFB OH	X							
Yokota AB JPN		X	X	X	X	X		
NOTE: This table is current as of the printing date. Changes may occur.								

Figure 11

Section C - Skill Level Training Requirements

9. Purpose. Skill level training requirements in this career field are defined in terms of tasks and knowledge requirements. This section outlines the specialty qualification requirements for each skill level in broad, general terms and establishes the mandatory requirements for entry, award, and retention of each skill level. The specific task and knowledge training requirements are identified in the STS at Part II, Sections A and B of this CFETP.

10. Specialty Qualifications:

10.1. **Apprentice Level Training:**

10.1.1. **Specialty Qualification**.

10.1.1.1. **Knowledge**. Knowledge is mandatory of: electrical, communication, navigation, mechanical, hydraulic, and pneumatic systems applying to aircraft and related systems; flight theory; minor in-flight maintenance; personal equipment and oxygen use; aircraft emergency procedures; and using and interpreting diagrams, schematics, aircraft performance charts, loading charts, technical publications, and flight manuals.

10.1.1.2. **Education**. For entry into this specialty, completion of high school with courses in mechanics and mathematics is desirable.

10.1.1.3. **Training.** Completion of the EAUC- Flight Engineer Helper (J3AQR1A111C 000) at Sheppard AFB Texas is mandatory for pipeline and non-aviation service cross training students. Completion of the Basic Flight Engineer Apprentice course is mandatory for award of the AFSC 1A131B.

10.1.1.4. **Other**. The following are mandatory as indicated:

10.1.1.4.1 For entry into this specialty, prior qualification at the 5- or 7-skill level in the 1AXXX, 2A1, 2A3X1/3, 2A4X1/2, 2A5, 2A6, or 2A7 career field ladder, or possession of a valid Federal Aviation Administration (FAA) Flight Engineer certificate with a jet or turboprop rating, Private Pilot's License, or valid FAA airframe and power plant (A&P) license and/or Aircraft Maintenance Technician (AMT).

10.1.1.4.2. For entry, award, and retention of this AFSC:

10.1.1.4.2.1. Physical qualification for aircrew duty according to AFMAN 48-123, *Medical Examination and Standards,* Class III Medical Standards.

10.1.1.4.2.2. Qualification for aviation service according to AFI 11-402, *Aviation Service, Aeronautical Ratings and Badges.*

10.1.1.4.3. For award and retention of AFSC 1A131C, eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.1.2. **Training Sources and Resources**. Completion of: Enlisted Aircrew Undergraduate Course (EAUC) Sheppard AFB TX, Combat Survival Training Course (S-V80-A) Fairchild AFB WA, Water Survival Non-parachuting (S-V90-A) Fairchild AFB WA or Water Survival (Parachuting) (S-V86-A) Pensacola NAS FL, and the Basic Flight Engineer Course (BFE) Altus AFB OK or Air National Guard Basic Flight Engineer Course (ANG BFE) Little Rock AFB AR, satisfies the knowledge and training requirements specified in the specialty qualification section for award of the 3-skill level.

10.2. **Journeyman Level Training:**

10.2.1. **Specialty Qualification.** Qualification in and possession of AFSC 1A131C.

10.2.1.1 **Knowledge**. Knowledge is mandatory of: electrical, communication, navigation, mechanical, hydraulic, and pneumatic systems applying to aircraft and related systems; flight theory; minor in-flight maintenance; personal equipment and oxygen use; aircraft emergency procedures; and using and interpreting diagrams, schematics, aircraft performance charts, loading charts, technical publications, and flight manuals.

10.2.1.2. **Education.** No additional requirements for entry into this skill level.

10.2.1.3. **Training.** Completion of the following training is mandatory for the award of the 5-skill level:

10.2.1.3.1. Completion of the 5-skill level CDC.

10.2.1.3.2. Completion of the resident and informal training for the assigned weapon system.

10.2.1.3.3. Training must meet core task requirements established in the STS.

10.2.1.4. **Experience.** Qualification in and possession of AFSC 1A131C. Also, experience is mandatory in functions such as aircraft and performance weight and balance computations, aircraft records maintenance, and aircraft systems maintenance and inspections.

10.2.1.5. **Other**. The following are mandatory as indicated:

10.2.1.5.1. For entry, award, and retention of the AFSC:

10.2.1.5.1.1. Physical qualification for aircrew duty according to AFMAN 48-123, *Medical Examination and Standards*, Class III Medical Standards.

10.2.1.5.1.2. Qualification for aviation service according to AFI 11-402, *Aviation Servcie, Aeronautical Ratings and Badges.*

10.2.1.5.2. For award and retention of AFSC 1A151B, eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.2.2. **Training Sources and Resources.** Completion of CDC 1A151, Flight Engineer Specialty Journeyman, satisfies the knowledge and training requirements specified in the specialty qualification section for the award of the 5-skill level. The STS identifies the core tasks required for qualification in the individual's duty position.

10.2.3. **Implementation**. Entry into upgrade training is initiated when the individual possesses the 3-skill level, a minimum of three months duty position experience has been completed and is assigned to their first duty station.

10.3. **Craftsman Level Training:**

10.3.1. **Specialty Qualification.** Qualification in and possession of AFSC 1A151C.

10.3.1.1. **Knowledge**. In addition to the 5-skill level and other qualifications as listed above, an individual must possess the knowledge and skills necessary to supervise personnel.

10.3.1.2. **Education**. To assume the grades of SSgt and MSgt, individuals must be graduates of the Airman Leadership School (ALS) and the NCO Academy, respectively.

10.3.1.3. **Training.** The CSAF has approved a variance eliminating the requirement for in-residence, 7-skill level, training for all 1AXXX (Air Operations career field personnel).

10.3.1.4. **Experience.** Qualification in and possession of AFSC 1A151C. Also, experience is mandatory in performing or supervising functions such as flight engineer activities.

10.3.1.5. **Other**. The following are mandatory as indicated:

10.3.1.5.1. For entry, award, and retention of the AFSC:

10.3.1.5.1.1. Physical qualification for aircrew duty according to AFMAN 48-123, *Medical Examination and Standards,* Class III Medical Standards.

10.3.1.5.1.2. Qualification for aviation service according to AFI 11-402, *Aviation Service, Aeronautical Ratings and Badges.*

10.3.1.5.2. For award and retention of AFSC 1A171C, eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.3.2. **Training Sources and Resources.** The STS identifies the core tasks required for qualification in the individual's duty position.

10.3.3. **Implementation**. Entry into OJT is initiated when an individual has obtained the necessary rank (SSgt) and skill level.

10.4. **Superintendent Level Training**:

10.4.1. **Specialty Qualification.** Qualification in and possession of AFSC 1A171C.

10.4.1.1. **Knowledge.** In addition to the 7-skill level qualification, the 9-skill level individual must be an effective leader of personnel and manager of assigned resources. Completion of qualification criteria in currently assigned aircraft is mandatory.

10.4.1.2. **Education.** Resident graduate (active duty only) of Senior Non-Commissioned Officer Academy (SNCOA) or sister service equivalent. Completion of CCAF degree is desired.

10.4.1.3. **Training.** Graduation in-residence from the SNCOA (correspondence course for ARC), or equivalent, and assumption of the rank of SMSgt is mandatory for the award of the 9-skill level AFSC, 1A190.

10.4.1.4. **Experience.** Qualification in and possession of AFSC 1A171C. Also, experience managing flight engineer functions and activities.

10.4.1.5. **Other**. The following are mandatory as indicated:

10.4.1.5.1. For entry, award, and retention of the AFSC:

10.4.1.5.1.1. Physical qualification for aircrew duty according to AFMAN 48-123, *Medical Examination and Standards,* Class III Medical Standards.

10.4.1.5.1.2. Qualification for aviation service according to AFI 11-402, *Aviation Service, Aeronautical Ratings and Badges.*

10.4.1.5.2. For award and retention of AFSC 1A190, eligibility for a secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.4.2. **Training Sources and Resources.**

10.4.3. **Implementation**. Entry into upgrade training is initiated when an individual possesses the 7-skill level and is in the grade of SMSgt. Qualification training is initiated anytime an individual is

assigned duties they are not qualified to perform. All QTPs will be completed to be awarded the 9-skill level.

Section D - Resource Constraints

11. **Purpose**. This section identifies known resource constraints which preclude optimal/desired training from being developed or conducted, including information such as cost and manpower. Narrative explanations of each resource constraint and an impact statement describing what effect each constraint has on training are included. Also included in this section are actions required, office of primary responsibility, and target completion dates. Resource constraints will be reviewed and updated at least annually.

12. Apprentice Level Training: None identified.

13. Journeyman Level Training: None identified.

14. Craftsman Level Training: None identified.

Section E - Input / Feeder AFSCs

15. The AFCFM and MAJCOM functional managers have identified certain AFSCs to be input/feeder AFSCs for AFSC 1A1X1X. These AFSCs offer the individual a high probability of success in completing the follow on flight engineer training. They are in no way a guaranty that an individual will successfully pass Basic Flight Engineer Training. Input/feeder AFSCs for AFSC 1A1X1X are:

AFSC	TITLE
1AXXX	Aircrew Operations Specialties
2A1XX	Manned Aerospace Maintenance
2A1X7	Electronic Warfare
2A3X1	F-15/F-111 Avionics Systems
2A3X3	Tactical Aircraft Maintenance
2A4X1	Aircraft Guidance Control
2A4X2	Aircraft Command Control Comm & Nav Sys
2A5X1	Aerospace Maintenance
2A5X2	Helicopter Maintenance
2A5X3	Bomber Avionics Systems
2A6X1	Aerospace Propulsion
2A6X2	Aerospace Ground Equipment
2A6X3	Aircrew Egress Systems
2A6X4	Aircraft Fuels Systems
2A6X5	Aircraft Hydraulics Systems
2A6X6	Aircraft Electrical & Environmental
2A7X3	Aircraft Metals Technology

16. Requests for entry into the Flight Engineer Career Field without any of the above AFSCs requires a waiver from the AFCFM. ARC Functional Managers have waiver authority for their MAJCOM. The procedure for requesting a waiver to these AFSCs is outlined in AFI 36-2101.

Part II

Section A - Specialty Training Standard

1. Implementation. This STS will be used for technical training provided by AETC for classes beginning in July 1999.

2. Purpose. As prescribed in AFI 36-2201, this STS:

2.1. Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airmen to perform duties at the 3-, 5-, and 7-skill level AFSC in the Flight Engineer Specialty ladder of the Aircrew Operation Career Field. These are based on an analysis of the duties in AFMAN 36-2108. Items in column 1 with an asterisk (*) are the tasks/knowledge items that are trained in the resident wartime course. Column 2 (Core Tasks) identifies, by asterisk (*), specialty-wide training requirements. NOTE: Core task is minimum qualification training required for upgrade to the 5-skill level, but only pertain to or are a function of the work center assigned.

2.2. Shows formal training and correspondence course requirements. Column 3 shows the proficiency to be demonstrated on the job by the graduate as a result of training (in Course BFE– PDS Code E8B– described in AFCAT 36-2223) and the career knowledge provided by the correspondence course. There is no advanced course. See ECI/AFSC/CDC listing maintained by the unit OJT manager for current CDC listings.

2.3. Provides certification for OJT. Column 4 is used to record completion of task and knowledge training requirements. Certification is accomplished as outlined in AFI 36-2201.

2.4. **Qualitative Requirements.** Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.

2.5. Becomes a job qualification standard (JQS) for on-the-job training and used according to AFI 36-2201. For OJT, the tasks in column 1 are trained and qualified to the go/no go level. Go means the individual can perform the task without assistance and meets local requirements for accuracy, timeliness, and correct use of procedures.

2.6. Is a guide for development of promotion tests used in the Weighted Airmen Promotion System (WAPS). Specialty Knowledge Tests (SKTs) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members to be most appropriate for promotion to higher grades. Questions are based on study references listed in the WAPS study catalog. Individual responsibilities are in AFI 36-2606.

3. **Recommendations**. Report unsatisfactory performance of individual course graduates to 97 OSS/DOT, 510 North Sixth Street, Suite 163, Altus AFB OK 73523. Reference specific STS paragraphs. Report inadequacies of this STS through channels to HQ AETC/DOFM, 1 F Street, Suite 2, Randolph AFB TX 78150 and 97OSS/DOT STS OPR.

BY ORDER OF THE SECRETARY OF THE AIR FORCE
OFFICIAL

Attachment:
Qualitative Requirements

THIS BLOCK FOR IDENTIFICATION PURPOSES ONLY		
NAME OF TRAINEE		
PRINTED NAME *(Last, First Middle Initial)*	INITIALS *(Written)*	SSAN

PRINTED NAME OF CERTIFYING OFFICIAL AND WRITTEN INITIALS	
N/I	N/I
N/I	N/I
N/I	N/I
N/I	N/I
N/I	N/I
N/I	N/I

QUALITATIVE REQUIREMENTS

PROFICIENCY CODE KEY		
	SCALE VALUE	DEFINITION: The Individual
TASK PERFORMANCE LEVELS	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)
	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)
*TASK KNOWLEDGE LEVELS	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step by step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, isolate, and resolve problems about the task. (ADVANCED THEORY)
**SUBJECT KNOWLEDGE LEVELS	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)

EXPLANATIONS

* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Examples: b and 1b)

** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.

\- This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.

x This mark is used alone in course columns to show that training is required but not given due to limitations in resources.

Attachment 1

Users are responsible for annotating training references (TR) to identify current references pending STS revision

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
1. CAREER LADDER PROGRESSION TR: AFMAN 36-2108	*									
1.1. Progression in AFSC 1A1X1C		-			A					
1.2. Duties of AFSC 1A131C/51C/71C		-			A					
2. SECURITY TR: AFI 10-1101										
2.1. Communications Security (COMSEC) Relating to AFSC 1A1X1C		-			A					
2.2. Operations Security (OPSEC) Relating to AFSC 1A1X1C		-			A					
3. AIR FORCE OCCUPATIONAL SAFETY AND HEALTH PROGRAM (AFOSH) TR: AFIs 91-301, -302										
3.1. Practice personal and equipment safety in work area										
3.1.1. Using tools and equipment		-			A					
3.1.2. Servicing aircraft systems TR: T.O. 00-25-172	*	-			A					
3.2. Observe Safety Precautions for:	*									
3.2.1. High intensity sound		-			A					
3.2.2. Engine air intake and exhaust		-			A					
3.2.3. Propeller and turbine plane of rotation		-			A					
3.2.4. Antenna radiation		-			A					
3.2.5. Aircraft grounding/handling		-			A					
3.2.6. Portable fire extinguisher use		-			A					
3.2.7. Electrical equipment/components		-			A					
4. TECHNICAL PUBLICATIONS TR: AFI 11-215, AFI 37-160, T.O. 00-5-1, (Section II through VI, X, and XI)										
4.1. Use Aircraft Maintenance T.O.s/Job Guides	*	-			A					
4.2. Use Issued Flight Publications	*	-			A					
4.3. Maintain Flight Publications	*	-			A					
4.4. Initiate Flight Publications Improvement Reports		-			A					
4.5. Use Flight Crew Information File	*	-			A					
4.6. Minimum Equipment List		-			A					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
5. TRAINING TR: AFIs 36-2202, -2204; applicable MAJCOM Instructions										
5.1. Plan and Supervise Training Programs		-			A					
5.2. Conduct Upgrade Training		-			A					
5.3. Maintain Flight Training Records		-			A					
6. FLIGHT MANAGEMENT TR: AFIs 11-202 series, -401, -402, , -412										
6.1. Responsibilities of HQ USAF/MAJCOM		-			A					
6.2. Functions of Host Operation System Management (HOSM)		-			A					
6.3. Flight Records Folder (FRF)		-			A					
6.4. Flight Authorization		-			A					
6.5. Aircrew Training Program	*									
6.5.1. Initial qualification		-			A					
6.5.2. Mission qualification		-			A					
6.5.3. Continuation		-			A					
6.6. Aircrew Standardization/Evaluation Program										
6.6.1. Evaluation Form (AF Form 8)		-			A					
6.6.2. Flight Evaluation Folder (FEF)		-			A					
6.7. General Flight Rules	*	-			A					
6.8. Aviation Categories, Pay and Badges		-			A					
7. AIRCRAFT AND EQUIPMENT RECORDS										
7.1. Aircraft Flight Report and Maintenance Records TR: T.O. 00-20 Series	*	-			A					
7.2. Use Aircraft Inventory Record		-			A					
8. AEROSPACE GROUND EQUIPMENT										
8.1. Operate Auxiliary Electrical Generating Sets	*	-			A					
8.2. Operate Auxiliary Environmental Equipment										
8.2.1. External air supplies	*	-			A					
8.2.2. Air blowers		-			A					
8.2.3. Lighting units		-			A					
8.3. Use Aircraft Support Equipment	*									
8.3.1. Wheel chocks		-			A					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
8.3.2. Landing gear safety pins		-			A					
8.3.3. Maintenance stands		-			A					
8.3.4. Ground wires		-			A					
8.3.5. Fire extinguishers		-			A					
9. AIRCRAFT PERFORMANCE TR: T.O.s 1C-XXX-1, 1C-XXX-1-1, 1C-XX-1, 1C-XX-1-1, 1C-X-1, 1C-X-1-1, 1E-X-1, and 1E-X-1-1										
* 9.1. Fundamental principles of:										
9.1.1. Turbofan/jet propulsion		B			-					
9.1.2. Turboprop propulsion		B			-					
9.1.3. Physics of the atmosphere		B			-					
9.1.4. Aerodynamics		B			-					
9.1.5. Weight and Balance	*	B			-					
9.1.6. Weather Sheet		B			-					
* 9.2. Solve Performance Math Problems	*	2b			-					
9.3. Predict Aircraft Performance Using:										
* 9.3.1. Performance charts and tables	*	2b			B					
9.3.2. Tabulated data		-			-					
9.3.3. Electronic performance computers		-			-					
9.4. Plan Performance/Identify Unsafe Conditions for Each Phase of Flight:	*									
9.4.1. Takeoff		2b			B					
9.4.2. Emergency return		2b			B					
9.4.3. Climb		2b			B					
9.4.4. Cruise		2b			B					
9.4.5. Holding/orbiting		2b			B					
9.4.6. Descent		2b			B					
9.4.7. Landing		2b			B					
9.4.8. Air refueling		-			A					
9.5. Determine Fuel Required for the Mission	*	2b			B					
9.6. Complete DD Form 365-4 Using:										
9.6.1. Weight and balance charts/tables	*	2b			B					
9.6.2. Load balance computer		-			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
9.7. Complete Aircraft Performance Documentation										
9.7.1. Performance form/logs		2b			-					
9.7.2. Performance planning worksheets		2b			-					
10. EMERGENCY EQUIPMENT TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, and 1E-X-1	*									
10.1. Identify Location On Aircraft		-			B					
10.2. Inspect/Describe Operation										
10.2.1. Escape systems and components		-			B					
10.2.2. Crash axes		-			B					
10.2.3. First Aid Kits		-			B					
10.2.4. Fire extinguishers		-			B					
10.2.5. Oxygen/smoke masks		-			B					
10.2.6. Emergency Escape Breathing Devices		-			B					
10.2.7. Portable oxygen bottles		-			B					
10.2.8. Overwater survival equipment		-			B					
10.2.9. Aircraft specific emergency equipment		-			B					
11. EMERGENCY PROCEDURES TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, and 1E-X-1	*									
11.1. Detect emergency conditions/system malfunctions		-			A					
11.2. Recommend appropriate checklist/corrective action		-			A					
12. ACCOMPLISHMENT OF CHECKLISTS TR: AFI 11-215	*									
12.1. Normal Checklist/Procedures		-			A					
12.2. Emergency Checklist/Procedures		-			A					
13. AIRCREW INSPECTIONS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1; MAJCOM Series										
13.1. Preflight	*									
13.1.1. Accomplish ground operations checks		-			A					
13.1.2. Conduct visual inspection		-			A					
13.2. Inflight	*	-			A					
13.3. Thru-flight Aircraft	*	-			A					
13.4. Post-flight Aircraft	*	-			A					
13.5. Inspect Personal Equipment	*	-			A					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
13.6. Check Cargo And Crew Equipment For:										
13.6.1. Placement in aircraft		-			-					
13.6.2. Restraint/security	*	-			-					
14. AIRCRAFT GENERAL TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
14.1. Airframe Features										
14.1.1. Basic construction		-			B					
14.1.2. Compartment location	*	-			B					
14.2. Aircraft Structural Integrity Program (ASIP)										
14.2.1. Purpose		-			B					
14.2.2. Complete forms		-			B					
14.3. Interpret Aircraft Markings/Stencils	*									
14.3.1. Grounding points		-			B					
14.3.2. Aircraft identification numbers		-			B					
14.3.3. Servicing instructions/requirements		-			B					
14.3.4. Hazard areas		-			B					
14.4. Principles of Ground Handling		-			B					
14.5. Inspect/Operate Equipment TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1	*									
14.5.1. Galley		-			A					
14.5.2. Seats/seat belts and shoulder harness		-			A					
14.5.3. Entry door/hatches		-			A					
14.5.4. Lighting systems		-			A					
14.6. Remove/Install Panels, Cowlings, Etc.	*	-			A					
15. AIRCRAFT GROUND/AIR REFUELING SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XXX-2/2X, 1C-XXX-2-5, 1E-X-1, 1E-X-2/2X, 1E-X-2-5, 1-1C-1, 1C-1X, 1C-XX-1										
15.1. Principles of Fuel System Operation	*	A			B					
15.2. Basic Fuel System Components Function/Location	*	-			B					
15.3. Inspect Visible Fuel System Components	*	-			B					
15.4. Operate Fuel System	*	-			B					
15.5. Detect Fuel System Malfunctions		-			B					
15.6. Take Corrective Action		-			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
15.7. Fuel Servicing Procedures/Checklist TR: AFOSH 127-38, 127-39, 127-66, T.O. 00-25-172 (Section I, II, VIII, IX)	*									
15.7.1. Ground refueling		-			A					
15.7.2. Ground defueling		-			A					
15.7.3. Inflight refueling		-			A					
15.7.4. Hot refueling		-			A					
15.7.5. Concurrent servicing		-			A					
16. HYDRAULIC SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
16.1. Principles of Hydraulic System Operation		A			B					
16.2. Basic Hydraulic System Components Function/Location		-			B					
16.3. Inspect Visible Hydraulic System Components		-			B					
16.4. Operate Hydraulic System	*	-			b					
16.5. Detect Hydraulic System Malfunctions		-			B					
16.6. Take Corrective Action		-			-					
16.7. Service Hydraulic System Reservoirs		-			B					
17. FLIGHT CONTROL SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
17.1. Principles of Flight Control System Operation	*	A								
17.1.1. Primary flight controls		-			B					
17.1.2. Secondary flight controls		-			B					
17.1.3. Auxiliary flight controls		-			B					
17.2. Basic Flight Control System Components Function/Location	*	-			B					
17.3. Automatic Flight Control System Components Function/Location		-			B					
17.4. Inspect Visible Flight Control Systems Components		-			B					
17.5. Detect Flight Control System Malfunctions		-			B					
17.6. Take Corrective Action		-			-					
18. LANDING GEAR SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
18.1. Principles of Landing Gear System Operation	*	A			B					
18.2. Basic Landing Gear System Components Function/Location	*	-			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
18.3. Inspect Visible Landing Gear System Components	*	-			A					
18.4. Detect Landing Gear System Malfunctions		-			A					
19. BRAKE SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
19.1. Principles of Brake System Operation	*	A			B					
19.2. Basic Brake System Components Function/Location		-			B					
19.3. Inspect Visible Brake System Components	*	-			A					
19.4. Detect Brake System Malfunctions		-			A					
20. CARGO LOADING RAMPS AND DOORS/VISOR SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
20.1. Principles of Ramp/Door/Visor/Systems Operation		-			A					
20.2. Basic Ramp/Door/Visor System Components Function/Location	*	-			A					
20.3. Inspect Visible Ramp/Door/Visor System Components	*	-			A					
20.4. Operate Ramp/Door/Visor System	*	-			-					
20.5. Detect Ramp/Door/Visor System Malfunctions		-			-					
20.6. Take Corrective Action		-			-					
21. POWER PLANT SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
21.1. Engine Components	*									
21.1.1. Principles of engine system operation		A			B					
21.1.2. Basic engine system components function/location		-			B					
21.1.3. Inspect visible engine system components		-			-					
21.1.4. Detect engine system malfunction		-			-					
21.1.5. Take Corrective Action		-			-					
21.1.6. Service engine system and subsystems		-			-					
21.2. Propeller Components	*									
21.2.1. Principles of propeller system operation		A			B					
21.2.2. Basic propeller system components function/location		-			B					
21.2.3. Inspect visible propeller system components		-			-					
21.2.4. Detect propeller system malfunctions		-			-					
21.2.5. Take Corrective Action		-			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
21.2.6. Accomplish propeller system static operational checks		-			-					
21.2.7. Service propeller system		-			-					
22. BLEED AIR SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
22.1. Principles of Bleed Air System Operation	*	A			B					
22.2. Basic Bleed Air System Components Function/Location		-			B					
22.3. Inspect Visible Bleed Air System Components		-			A					
22.4. Operate Bleed Air System	*	-			A					
22.5. Detect Bleed Air System Malfunctions/		-			A					
22.6. Take Corrective Action		-			-					
23. AIR CONDITIONING SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
23.1. Principles of Air Conditioning System Operation	*	A			B					
23.2. Basic Air Conditioning System Components Function/Location		-			B					
23.3. Inspect Visible Air Conditioning System Components		-			A					
23.4. Operate Air Conditioning System	*	-			-					
23.5. Detect Air Conditioning System Malfunctions		-			A					
23.6. Take Corrective Action		-			-					
24. PRESSURIZATION SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
24.1. Principles of Pressurization System Operation	*	A			B					
24.2. Basic Pressurization System Components Function/Location		-			B					
24.3. Inspect Visible Pressurization System Components		-			A					
24.4. Operate Pressurization System	*	-			-					
24.5. Detect Pressurization System Malfunctions		-			A					
24.6. Take Corrective Action		-			-					
25. FIRE/OVERHEAT WARNING SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
25.1. Principles of Fire/Overheat Warning System Operation	*	-			B					
25.2. Basic Fire/Overheat Warning System Components Functions/Location		-			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
25.3. Inspect Visible Fire/Overheat Warning System Components		-			-					
25.4. Detect Fire/Overheat Warning System Malfunctions		-			-					
25.5. Take Corrective Action		-			-					
26. FIRE EXTINGUISHER SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
26.1. Principles of Fire Extinguishing System Operation	*	-			B					
26.2. Basic Fire Extinguishing System Components		-			B					
26.3. Inspect Visible Fire Extinguishing System Components		-			-					
26.4. Operate Fire Extinguishing System	*	-			-					
26.5. Detect Fire Extinguishing System Malfunctions		-			A					
26.6. Take Corrective Action		-			-					
27. FIRE SUPPRESSION SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
27.1. Principles of Fire Suppression System Operation	*	-			B					
27.2. Basic Fire Suppression System Components Function/Location		-			B					
27.3. Inspect Visible Fire Suppression System Components		-			-					
27.4. Operate Fire Suppression System	*	-			-					
27.5. Detect Fire Suppression System Malfunctions		-			-					
27.6. Take Corrective Action		-			-					
28. ANTI-ICING/DE-ICING SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
28.1. Principles of Anti-Icing/De-Icing Systems Operation	*	-			B					
28.2. Basic Anti-Icing/De-Icing System Components Function/Location		-			B					
28.3. Inspect Visible Anti-Icing/De-Icing System Components		-			B					
28.4. Operate Anti-Icing/De-Icing Systems	*	-			-					
28.5. Detect Anti-Icing/De-Icing Systems Malfunctions		-			-					
28.6. Take Corrective Action		-			-					
29. INSTRUMENTATION SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
29.1. Principles of Instrumentation Operation	*	-			B					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
29.2. Basic Instrumentation Components Function/Location	*	-			B					
29.3. Inspect Visible Instrumentation Components		-			-					
29.4. Detect Instrumentation Malfunction		-			-					
29.5. Take Corrective Action		-			-					
30. ELECTRICAL SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
30.1. Principles of Electrical System Operation	*	A			B					
30.2. Basic Electrical System Components Function/Location	*	-			B					
30.3. Inspect Visible Electrical System Components		-			-					
30.4. Detect Electrical System Malfunctions		-			-					
30.5. Take Corrective Action		-			-					
31. ELECTRONIC COOLING SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
31.1. Principles of Electronic Cooling System Operation	*	-			B					
31.2. Basic Electronic Cooling System Components Function/Location		-			B					
31.3. Inspect Visible Electronic Cooling System Components		-			B					
31.4. Operate Electronic Cooling System	*	-			-					
31.5. Detect Electronic Cooling System Malfunctions		-			-					
31.6. Take Corrective Action		-			-					
32. COMMUNICATIONS SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
32.1. Communication Procedures And Phraseology Using:										
32.1.1. Aircraft Radios/Satellite Communication Systems		-			B					
32.1.2. Interphone/Intraplane systems		-			B					
32.2. Principles of Communication Systems Operation	*	-			B					
32.3. Basic Communication Systems Components Function/ Location		-			B					
32.4. Inspect Visible Communication Systems Components		-			-					
32.5. Operate Communication System	*	-			-					
32.6. Detect Communication Systems Malfunctions		-			-					
32.7. Take Corrective Action		-			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
33. NAVIGATION SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
33.1. Principles of Navigation System Operation	*	-			B					
33.2. Basic Navigation System Components Function/Location		-			B					
33.3. Inspect Visible Navigation System Components		-			-					
33.4. Operate Navigation Systems	*	-			-					
33.5. Detect Navigation Systems Malfunctions		-			-					
33.6. Take Corrective Action		-			-					
34. RADAR SYSTEMS TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
34.1. Principles of Radar System Operation	*	-			B					
34.2. Basic Radar System Components Function/Location		-			B					
34.3. Inspect Visible Radar System Components		-			-					
34.4. Operate Radar System	*	-			-					
34.5. Interpret Radar Screen Displays	*	-			-					
34.6. Detect Radar System Malfunctions		-			-					
34.7. Take Corrective Action		-			-					
35. MONITORING SYSTEMS (MADAR, FSAS, CVR, GPWS, FDR, TCAS, GCAS, FMS) TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
35.1. Principles of Monitoring Systems Operation	*	-			B					
35.2. Basic Monitoring Systems Components Function/Location		-			B					
35.3. Inspect Visible Monitoring Systems Components		-			-					
35.4. Operate Monitoring Systems	*	-			-					
35.5. Detect Monitoring System Malfunctions		-			-					
35.6. Take Corrective Action		-			-					
36. OXYGEN SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
36.1. Principles of Oxygen System Operation	*	-			B					
36.2. Basic Oxygen System Components Function/Location		-			B					
36.3. Inspect Visible Oxygen System Components		-			-					
36.4. Operate Oxygen Systems	*	-			-					

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Task	3. Proficiency codes used to indicate training / information provided					4. CERTIFICATION OF OJT			
		A 3-Skill Level		B 5-Skill Level		C 7-Skill Level	A	B	C	D
		(1) CRS	(2) CDC	(1) CRS	(2) CDC	(1) OJT	Start Date	Comp Date	Certify Official's Initials	Trainee's Initials
36.5. Detect Oxygen System Malfunctions		-			-					
36.6. Take Corrective Action		-			-					
37. AUXILIARY POWER SYSTEM TR: T.O.s 1C-XXX-1, 1C-XX-1, 1C-X-1, 1E-X-1										
37.1. Principles of Auxiliary Power System Operation	*	A			B					
37.2. Basic Auxiliary Power System Components Function/Location		-			B					
37.3. Inspect Visible Auxiliary Power System Components		-			-					
37.4. Operate Auxiliary Power System	*	-			-					
37.5. Detect Auxiliary Power System Malfunctions		-			-					
37.6. Take Corrective Action		-			-					
37.7. Service Auxiliary Power Systems	*	-			-					
38. GENERAL NAVIGATION (TERPS) TR: AFI 11-217										
38.1. Fundamentals of Chart Reading	*									
38.1.1. SIDS/TCN/FLIPS/NOTAMS		-			B					
38.1.2. Approach plates/stars		-			B					
38.1.3. Chart/map reading		-			B					
38.1.4. Enroute/terminals charts		-			B					
38.2. NAVAID Interpretation and Principles	*	-			B					
38.3. Approach and Departure Monitoring	*	-			B					
38.4. Position Orientation	*	-			B					
39. Instrument Navigation TR:	*	-			-					
40. Crew Resource Management TR: AFI	*	-			B					
41. Defensive Systems TR: Aircraft TO series		-			-					

Section B - Course Objective List

4. Measurement. Each objective is indicated as follows: **W** indicates task or subject knowledge which is measured using a written test, **PC** indicates required task performance which is measured with a performance progress check, and **PC/W** indicates separate measurement of both knowledge and performance elements using a written test and a performance progress check.

5. Standard. The standard is 85% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. Instructor assistance is provided as needed during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained.

6. Proficiency Level. Most task performance is taught to the "2b" proficiency level which means the students can do most parts of the task, but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step-by-step procedures for doing the task.

7. Course Objective. These objectives are listed in the sequence taught by block of instruction. Underlined STS elements show where the training is closed-out for the level indicated.

NOTE: This area is reserved.

Section C - Support Material

NOTE: There are currently no support material requirements. This area is reserved.

Section D - Training Course Index

9. Purpose. This section of the CFETP identifies training courses available for the specialty and shows how the courses are used by each MAJCOM in their career field training programs.

10. Air Force In-Residence Courses.

COURSE NUMBER	COURSE TITLE	LOCATION
J3AQR1A111C 001	Helicopter Flight Engineer Helper	Sheppard AFB, TX
S-V80-A	Combat Survival Training	Fairchild AFB, WA
S-V83-A	Special Survival Training	Fairchild AFB, WA
S-V86-A	Water Survival Training	Pensacola NAS, FL
S-V90-A	Water Survival Training (non-parachuting)	Fairchild AFB, WA
BFE	Basic Flight Engineer	Altus AFB, OK
ANGBFE	Air National Guard Basic Flight Engineer	Little Rock AFB, AR
C-5/C-141FIQ	C-5/C-141 Initial Qual	Altus AFB, OK
C-130FIQ	C-130 Flight Engineer Initial Qual	Little Rock AFB, AR

11. Advanced Training.

COURSE NUMBER	COURSE TITLE	LOCATION
C-5/C-141IFE	C-5/C-141 Instructor Qual	Altus AFB, OK
C-130FIN	C-130 Flight Engineer Instructor Qual	Little Rock AFB, AR
MC-130FIQ	MC-130 Instructor Qual	Kirtland AFB NM
MC-130EFEMQ	MC-130E Initial/Mission Qual (COMBAT TALON I)	Hurlburt Field, FL/Duke Field
MC-130HFEMQ	MC-130H Mission Qual	Kirtland AFB, NM
HC-130FEMQSO	Mission Qual (Special Ops)	Kirtland AFB, NM
HC-130FEMQR	Mission Qual (Rescue)	Kirtland AFB, NM
MC130HFEIQ	Flight Engineer Initial Instructor Qual	Kirtland AFB NM
MC130PFEIQ(SOF)	FE Initial Instructor Qual	Kirtland AFB NM
MC130PFEIQ(Rescue)	FE Initial Instructor Qual	Kirtland AFB NM
EC130MQOFK	EC-130E Flight Engineer Mission Qual	Keesler AFB, MS
EC130MQOFD	EC-130H Flight Engineer Mission Qual	Davis-Monthan AFB, AZ
AC130HFE	AC-130H Gunship Mission Qual	Hurlburt Field, FL
AC130UFE	AC-130U Mission Qual	Hurlburt Field, FL
E3000BQOFX	E-3 Flight Engineer	Tinker AFB, OK
E3AEC001	NATO E-3 Flight Engineer	Geilenkirchen AB, GE
E3BQFE	E-3 Instructor Flight Engineer	Tinker AFB, OK
E8 FE	E-8 Flight Engineer	Robins AFB, GA
KC10F	KC-10 Initial Qual	Travis/McGuire
KC-10FIC	KC-10 Instructor Flight Engineer	Travis/McGuire
Contract	E-4	Contract
Contract	C-137C	Contract
Contract	VC-25	Contract
C-135	C-135	McClellan
CV-22FEMQ	CV22 Flight Engineer Mission Qual	Contract/Various

12. Other Courses in the Field. (Special Aircraft Assignment)

Aircraft	Contract	Local Upgrade	Location	Command
E-4B	Initial Training United	Initial Qualification	Offutt AFB NE	ACC
	Recurring United Air J10HC1325S004			

C-137/25	Contract Simulator 2 CPT, 7 Simulators	Initial Ground School Phase 1 - 19 Day	Andrews AFB	AMC
		Phase II/Second FE 120 Days	Andrews AFB	AMC
		Phase III/First FE	Andrews AFB	AMC
C-18	American Airlines	Initial Qualification	Edwards AFB	AFMC
NC-141A	Local Training	Previous Qualification	Edwards AFB	AFMC
NC-135	Flight Safety	Initial Qualification	Edwards AFB	AFMC
FBP	Flight Engineer Basic Pre-Qual	Preparatory	Travis/McGuire	AMC
FIP	Flight Instructor Prep	Preparatory	Kirtland AFB	AETC
C5FE	C-5 First Flight Engineer	First FE upgrade	Dover/Travis	AMC

13. Extension Course Institute (ECI) Courses.

COURSE NUMBER	COURSE TITLE
CDC 1A151	Flight Engineer

Section E - MAJCOM Unique Requirements

Flight Engineers are required to complete initial and recurring training events for their primary assigned aircraft. Refer to Air Force Instructions, for additional information on these requirements. Additionally, to maintain qualification and proficiency, flight engineers will accomplish the flying currency requirements identified in AFI 11-2C series, as supplemented by MAJCOMs.